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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,030	09/29/2005	Javier Espina Perez	De 030103	8242
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EXAMINER				
NGUYEN, STEVEN C				
ART UNIT		PAPER NUMBER		
4121				
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09/19/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,030

Applicant(s)

ESPINA PEREZ ET AL.

Examiner

STEVEN C. NGUYEN

Art Unit

4121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 29 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 09/20/2007
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to application 10/551030 filed on 09/29/2005. Claims 1-10 are pending.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because of the following informalities: The disclosure should include headings (for example, BACKGROUND OF THE INVENTION, SUMMARY OF THE INVENTION, DESCRIPTION OF DRAWINGS, DETAILED DESCRIPTION). Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In reference to **Claim 9**, the claim recites the terms "preferably maximally", "particularly preferably maximally", and "particularly maximally." These terms render the claim indefinite because the terms are prima face optional. The wishes and preferences do not particularly point out and distinctly claim the invention. The narrower limitations should be positively recited in further dependent claims.

In reference to **Claim 10**, the claim recites the terms "preferably", "particularly preferably", and "particularly." These terms render the claim indefinite because the terms are also prima facie optional. The wishes and preferences do not particularly point out and distinctly claim the invention. The narrower limitations should be positively recited in further dependent claims. Claim 10 also recites the limitation "repetition frequency" (Line 2). There is insufficient antecedent basis for this limitation in the claim. Claim 10 also recites the limitation "0.5 to 100 Hz", "2 to 80 Hz", "5 to 60 Hz", "10 to 50 Hz" (Lines 4-5). Examiner notes that although frequency is claimed in Hz, the specification defines repetition frequency as the time in between when the apparatuses disconnect from the network. Examiner will construe the values to be a form of time instead of Hz.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray et al (US 2003/0043073) in view of Jini Architectural Overview (NPL, Sun Microsystems, 01/1999) and Constructing Ad Hoc Networks (NPL, Jim Waldo Sun Microsystems, 11/2001) hereinafter Gray, Jini Overview, and Waldo, respectively.

In reference to **Claim 1**, Gray teaches a method of discovering proximate apparatuses and services in a wireless network (*Paragraph 12, Lines 1-4 speaks of a method that can gather network based position information and tracking of wireless client devices*) with at least one Access Point (AP) (*Paragraph 34, Lines 4-8 speaks of multiple access points being used to provide service*). Gray does not teach that the apparatus to be discovered periodically separates itself from its Access Point and builds up its own Ad Hoc Network (AHN) which can be recognized via its Service Set Identifier (SSID) by a searching apparatus. Jini Overview teaches that the apparatus to be discovered can periodically separate itself from its Access Point (*Page 2, 35-39 states that Jini technology infrastructure allows users to join and detach from the network*). Waldo teaches that devices within a Jini network are able to set up their own Ad Hoc Networks (*Page 9, Jini Networking Technology Section, Lines 1-3 states that the Jini system was built to allow the ad hoc construction of components*) which can be

recognized via its Service Set Identifier (SSID) by a searching apparatus (*Page 10, Jini Networking Technology Section, Lines 9-12 states that the Jini system is built around a look up service that allows providers to advertise their presence, this look up service would have incorporate SSID information as each member of the WLAN must have the same SSID in order to communicate*). It would have been obvious to a person having ordinary skill in the art to which the subject matter pertains to combine the teachings of Gray (*discovering apparatuses in a network, having at least one access point*), Jini Overview (*apparatuses separating from the access point*), and Waldo (*setting up an ad hoc network recognizable by a SSID*). The motivation behind this would be expandability. Ad hoc networks can adjust to the growth that networks are currently experiencing. Current networks have grown in size where some participants are being added, removed, and changed, all the time (*Waldo, Introduction Section, Lines 12-18*).

In reference to **Claim 2**, the limitations of Claim 1 have been addressed above. It is inherent that Gray's network does not comprise any further elements apart from the apparatus it has generated. If nothing is added, you would not have anything additional at all. Gray does not teach that his network is an Ad Hoc Network. Waldo teaches an Ad Hoc Network (*Page 9, Jini Networking Technology Section, Lines 1-3 states that the Jini system was built to allow the ad hoc construction of components*). It would have been obvious to a person having ordinary skill in the art to which the subject matter pertains to combine Gray with Waldo (Ad Hoc Network). The motivation behind this would be for additional expandability.

In reference to **Claim 4**, the limitations of Claim 1 have been addressed above. Gray teaches that the searching apparatus queries, via its WLAN transceiver, the signal strength of the apparatuses that have been found (*Paragraph 35, Lines 1-3 states that there is a transceiver on the Access Point [searching apparatus], and Paragraph 53, Lines 19-22 states that the device detection includes a signal strength along with location*).

In reference to **Claim 6**, the limitations of Claim 1 have been addressed above. Gray does not teach that the searching apparatus employs Universal Plug and Play (UPnP) to be able to access the services discovered. Waldo teaches that the searching apparatus employs Universal Plug and Play to be able to access the services discovered (*Page 10, Discovery Section, Lines 11-23 states that the Jini system is built to run on any network, whether it is UPnP or Bluetooth*). It would have been obvious to a person having ordinary skill in the art to which the subject matter pertains to combine Gray with Waldo (using UPnP). The motivation behind this is because UPnP is platform independent. This allows users of different operating systems and different programming languages to be able to communicate with UPnP protocols.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray et al (US 2003/0043073) in view of Jini Architectural Overview (NPL, Sun Microsystems, 01/1999) and Constructing Ad Hoc Networks (NPL, Jim Waldo Sun Microsystems, 11/2001) and further in view of common practices in the art.

In reference to **Claim 3**, the limitations of Claim 1 have been addressed above. Waldo does not teach that the Service Set Identifier of the Ad Hoc Network (AHN) includes an unambiguous identification name of the apparatus (UUID). However, this was common in the art. To keep in line with the point of the invention, the SSID would have to be unambiguous. Multiple devices with the same SSID would lead to ambiguity when communicating. It would have been obvious to a person having ordinary skill in the art to which the subject matter pertains to combine Waldo with an unambiguous SSID. The motivation behind this would be so that the user can find out what kind of service the apparatus is offering.

Claims 5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray et al (US 2003/0043073) in view of Jini Architectural Overview (NPL, Sun Microsystems, 01/1999) and Constructing Ad Hoc Networks (NPL, Jim Waldo Sun Microsystems, 11/2001) and further in view of Meade (US 2002/0184304) hereinafter Meade, and common knowledge in the art.

In reference to **Claim 5**, the limitations of Claim 4 have been addressed above. Gray does not teach that the searching apparatus classifies the apparatuses that have been found with signal strength of more than -60 dBm as proximate apparatuses. Meade teaches that the apparatuses have been found with a signal strength of more than -60 dBm are proximate apparatuses (*Paragraph 44, Lines 4-6 and 9-13 state that the invention is configured to detect peripheral devices that are within a predetermined range exceeding a minimum signal strength level. The lower the dBm the better the*

signal, therefore if the signal strength is closer to 0, the closer the apparatus is to the searching apparatus). The selection of a particular dBm to signal as a proximate apparatus is within the province of one skilled in the art (in this case -60 dBm). If the dBm is increased, the apparatus would be closer. If the dBm is decreased, the apparatus is further away. Further, there is no new or unexpected result disclosed as being associated with the specific value recited in the applicants claim. It would have been obvious to a person having ordinary skill in the art to which the subject matter pertains to combine Gray with Meade (ability to set a minimum signal strength level). The motivation behind this would be so that the user can specify exactly how close he wants the apparatuses to be.

In reference to **Claim 7**, the limitations of Claim 6 have been addressed above. Gray does not teach using UPnP to search among the proximate apparatuses and that the searching apparatus finds that apparatus which provides the desired services. Waldo teaches using UPnP to search among the proximate apparatuses (*as discussed in Claim 6*). Meade teaches that the searching apparatus finds that apparatus that provides the desired services (*Paragraph 23, Lines 1-9 state that the requesting host user can figure out the capabilities of the selected peripheral device*). It would have been obvious to a person having ordinary skill in the art to which the subject matter pertains to combine Gray with Waldo (UPnP) and Meade (ability to search for the apparatus that provides a certain service). The motivation behind this would be so that the user can not only search for proximate apparatuses, but the proximate ones that will

perform a function that they need. Also, with UPnP, the user is not confined to a certain operating system or programming language.

In reference to **Claim 8**, the limitations of Claim 6 have been addressed above. Gray does not teach that the searching apparatus initially discovers all desired services available in the network by means of UPnP and subsequently determines which services are in its proximity. Meade teaches initially discovering all desired services available and determines which services are in its proximity (*Paragraph 43, Lines 5-13 states that each peripheral device broadcasts a signal indicative of its current location and that the proximity is determined by the strength of the signal*). Waldo teaches that UPnP is used (*as discussed in Claim 6*). It would have been obvious to a person having ordinary skill in the art to which the subject matter pertains to combine Gray with Meade (gathering peripheral devices and ones in the vicinity) and Waldo (UPnP). The motivation behind this would be to allow the user to be able to see exactly where all the peripherals are at in case the nearest one has an issue. The usage of UPnP is beneficial due to the platform independence.

In reference to **Claim 9**, the limitations of Claim 1 have been addressed above. Gray does not teach wherein the period of time in which the apparatus to be discovered is separated from its Access Point is maximally 1 s, preferably maximally 100 ms, particularly preferably maximally 50 ms, and particularly maximally 10 ms. Meade teaches that the apparatus to be discovered is separated from its Access Point for a certain period of time (*Paragraph 45, Lines 1-6 states that the discovering step [where the apparatuses register their IDs] may be periodically repeated in any amount of*

seconds or minutes or up to the users discretion). The selection of particular time intervals is within the province of one skilled in the art (in this case, 1 second). If the separation time is short, it forces the apparatus to build its Ad Hoc Network more quickly and there is less chance of having the connection reset. If the separation time is long, it gives the apparatus more time to set up its Ad Hoc Network but there is more chance that the connection to the Access Point could be lost when it reconnects. Further, there is no new or unexpected result disclosed as being associated with the specific value recited in the applicants claim. It would have been obvious to a person having ordinary skill in the art to which the subject matter pertains to combine Gray with Jini Overview (having a time frame for peripherals being unplugged). The motivation behind this would be so that the peripheral is not disconnected for too long from the Access Point, if it is, the connection to the Access Point may need to be restarted which would take time.

In reference to **Claim 10**, the limitations of Claim 1 have been addressed above. Gray does not teach that the repetition frequency at which the apparatus to be discovered is separated from its Access Point is 0.5 to 100 Hz, preferably 2 to 80 Hz, particularly preferably 5 to 60 Hz and particularly 10 to 50 Hz. Meade teaches that the repetition frequency from the Access Point is measured as time (*Paragraph 45, Lines 1-6 states that the discovering step [where the apparatuses register their IDs] may be periodically repeated in any amount of seconds or minutes or up to the users discretion*). The selection of particular time intervals is within the province of one skilled in the art. If the separation time is short, it forces the apparatus to build its Ad Hoc

Network more quickly and there is less chance of having the connection reset. If the separation time is long, it gives the apparatus more time to set up its Ad Hoc Network but there is more chance that the connection to the Access Point could be lost when it reconnects. Further, there is no new or unexpected result disclosed as being associated with the specific value recited in the applicants claim. It would have been obvious to a person having ordinary skill in the art to combine Gray with Meade (time frame for reconnection). The motivation behind this would be so that the SSIDs can be refreshed so the user can have an updated list of peripherals nearby.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Allard et al (NPL, Jini Meets UPnP, 01/27/2003). The reference speaks about Jini and UPnP being interoperable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN C. NGUYEN whose telephone number is (571)270-5663. The examiner can normally be reached on Monday through Thursday with alternating Friday 7:30AM - 5:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Robertson can be reached on (571)272-4186. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S.C.N/
Steven C. Nguyen
Examiner, Art Unit 4121
09/12/2008

/David L. Robertson/
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